

Serial No.: 10/699,604

**In the drawings:**

Per the Examiner's requirement on Page 2 of the Office Action, corrected drawing sheets 2/4 and 4/4 in compliance with 37 CFR 1.121(d) are filed herewith. These sheets have been labeled "Replacement Sheet". Per the Examiner's requirement, the specific changes include the addition of a remotely located cable station to Fig. 2 and a Raman pump source to Fig. 4. A copy of the original drawing sheets indicating the desired changes are filed herewith as well.

An indication of the Examiner's approval of the proposed changes is respectfully requested in the next Patent Office communication.

ANNOTATED SHEET

2/4

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Group Art Unit 2633

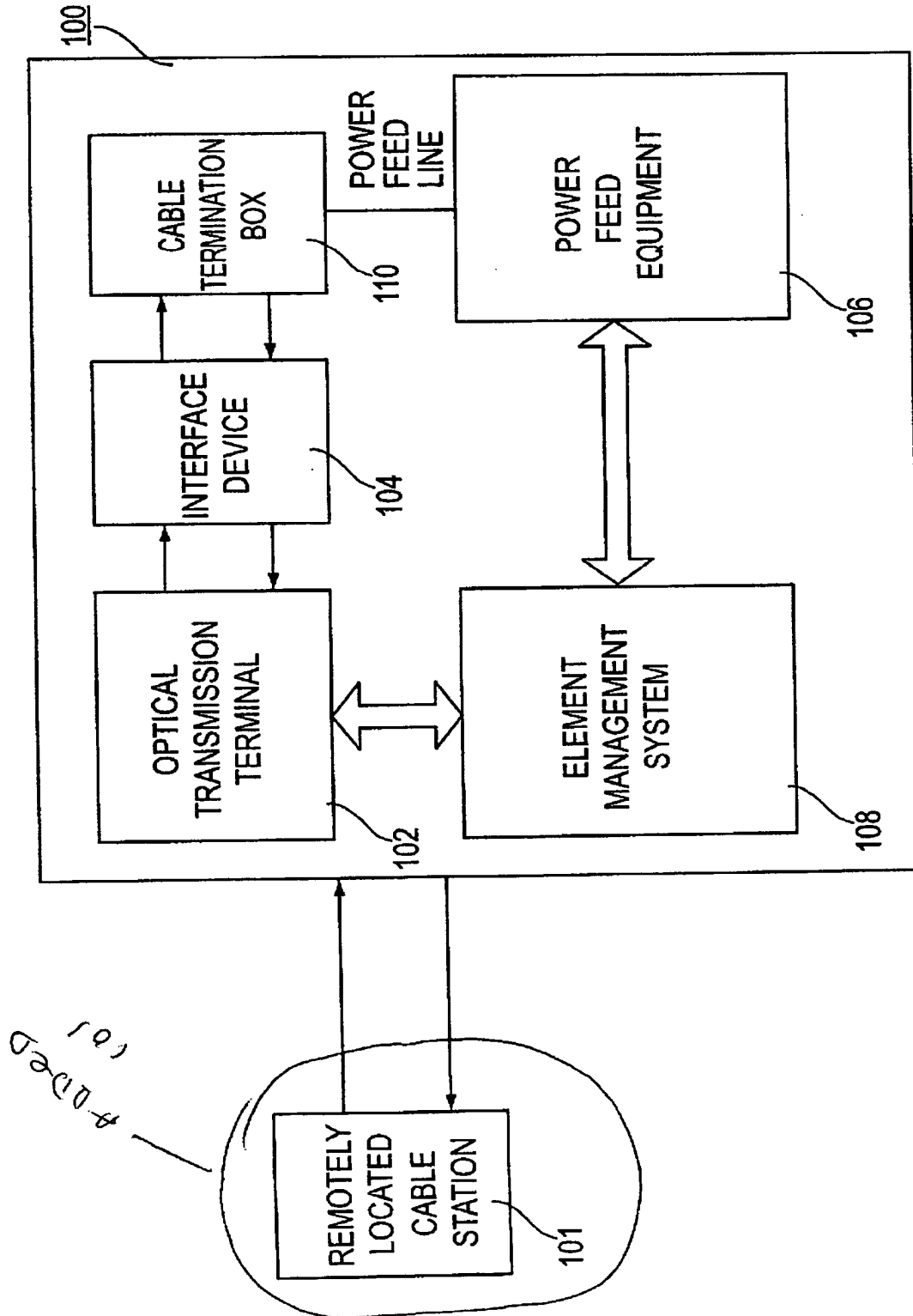


FIG. 2

ANNOTATED SHEET

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Group Art Unit 2633

4/4

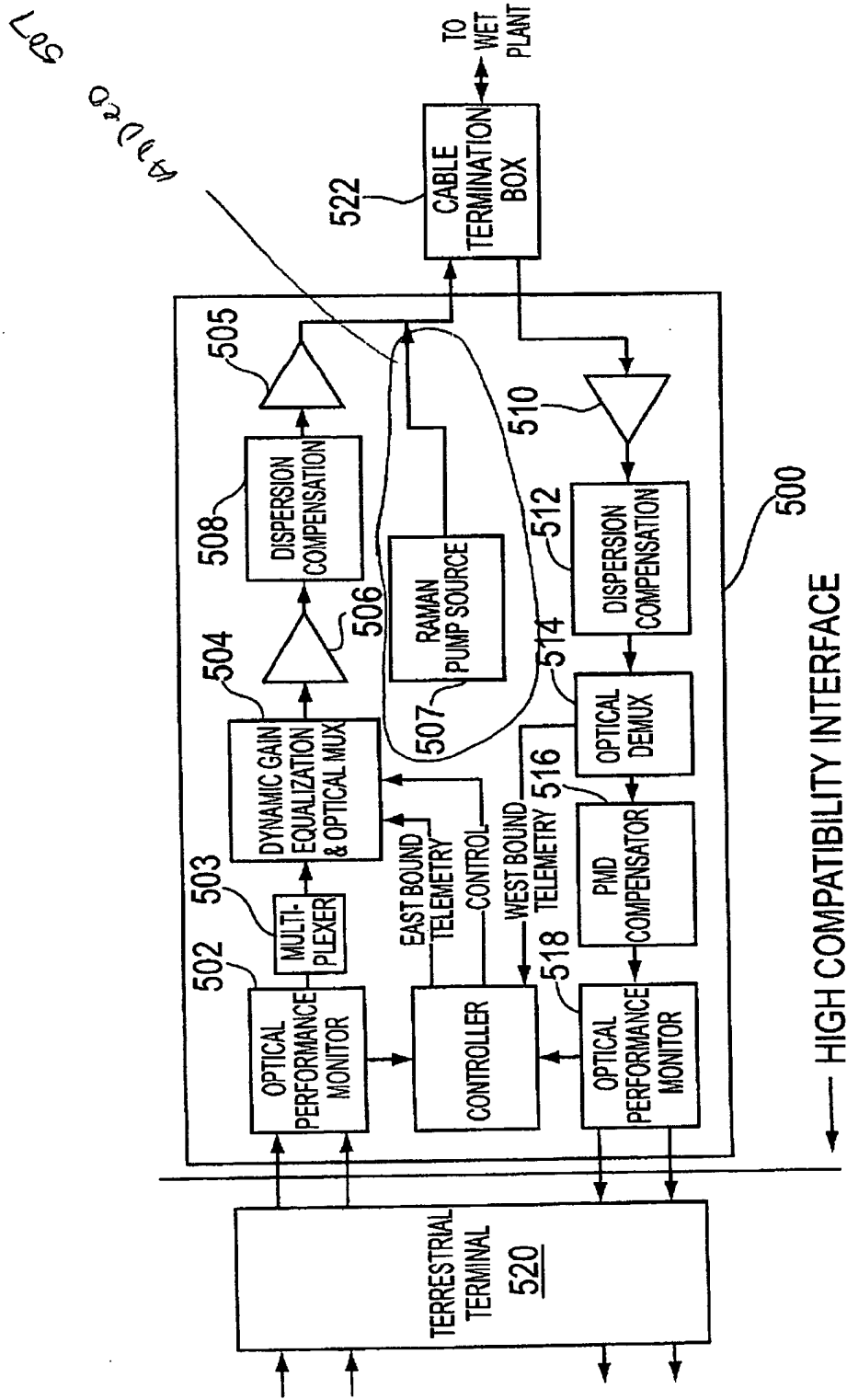


FIG. 4

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## REMARKS

Claims 1-46 are pending in this application, claims 1, 11, 23 and 35 being the independent claims.

Claims 1-2, 5-6, 8, 10-12, 15-16, 18, 20-24, 27-28, 30, 32-36, 39-40, 42, and 44 stand rejected under 35 U.S.C. 102(b) as being anticipated by Chesnoy et al. Claims 3-4, 13-14, 25-26, 37-38 and 45 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Chesnoy in view of Ramaswami et al. Claims 7, 17, 29, and 41 stand rejected as being unpatentable over Chesnoy in view of the admitted prior art and Ramaswami. Claims 9, 19, 31 and 43 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Chesnoy in view of the admitted prior art. These rejections are hereby traversed for at least the following reasons.

In accordance with the present invention as set forth in claim 1, a land-based cable station is provided for an undersea optical transmission system. The cable station includes submarine line terminal equipment (SLTE) for processing terrestrial traffic received from an external source, power feed equipment for supplying electrical power to active undersea components of the transmission system, an element management system for configuring and obtaining status information from the transmission system, and a cable termination box in which an undersea cable terminates. The SLTE includes terrestrial optical transmission equipment receiving the terrestrial traffic and generating optical signals in response thereto. The SLTE also includes an interface device providing signal conditioning to the optical signals received from the terrestrial optical transmission equipment so that the optical signals are suitable for transmission through the undersea optical transmission system.

One important advantage of the present invention is that highly specialized undersea equipment is replaced with commercially available terrestrial equipment. The terrestrial optical transmission equipment is used to perform any necessary optical-to-electrical conversion, FEC processing, electrical-to-optical conversion, and optical multiplexing that would otherwise be performed by the highly specialized undersea equipment. The terrestrial optical transmission equipment may also perform optical amplification, optical monitoring that is designed for the terrestrial optical network, and network protection.

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Chesnoy in FIGs. 2 and 3 shows a conventional cable station. The Examiner asserts that the tributary block set forth in FIG. 2 and the top tributary in FIG. 3 correspond to the claimed terrestrial optical transmission equipment. Applicants' respectfully submit that this correspondence is incorrect. As support for this assertion the Examiner points to the last line on page 377 of Chesnoy, which states that "SLTE performs the modulation between a terrestrial traffic signal and an appropriate signal for a submarine transmission line." Rather than supporting the Examiner's assertion that the SLTE contains the claimed terrestrial optical transmission equipment, this statement in fact supports quite the opposite conclusion. The statement quoted from Chesnoy simply says that the tributary block of the SLTE converts terrestrial traffic into an optical signal that is appropriate for an undersea transmission line, as further noted in paragraph 3 of Applicants' specification. That is, the tributary block serves as an *interface* that receives traffic from terrestrial optical transmission equipment. The tributary block in and of itself is not terrestrial optical transmission equipment. Rather, as discussed on pages 381 and 382 of Chesnoy, it is equipment that performs limited and highly specialized functions. More specifically, the tributary block is not terrestrial optical transmission equipment of the type discussed in Applicant's specification such as commercially available terrestrial equipment like the Nortel LH1600 and LH4000, Siemens MTS 2, Cisco 15808 and the Ciena CoreStream long-haul transport products (see paragraph 21 of Applicants' specification). One of ordinary skill in the art will certainly recognize that the tributary blocks in the SLTE of Chesnoy are not substitutes for, and could not be substituted for, any of these commercially available products, which provide different features and functionality from the tributary block.

Since the Chesnoy, alone or in combination with the remaining cited references, does not show or suggest the claimed terrestrial optical transmission equipment, it is respectfully requested that for at least this reason the rejection of independent claim 1 and the claims that depend therefrom under 35 U.S.C. 102(b) and 103(a) be reconsidered and withdrawn. The remaining independent claims, and the claims that depend therefrom, are also believed to be allowable for the same reasons presented above in connection with claim 1.

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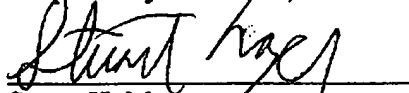
**Conclusion**

In view of the foregoing, it is believed that the application is now in condition for allowance and early passage of this case to issue is respectfully requested. If the Examiner believes there are still unresolved issues, a telephone call to the undersigned would be welcomed.

**Fees**

If there are any fees due and owing in respect to this amendment, the Examiner is authorized to charge such fees to deposit account number 50-1047.

Respectfully submitted,



Stuart H. Mayer

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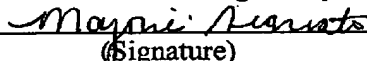
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Marjorie Scariati

(Printed Name of Person Sending Correspondence)

  
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